

ABSTRACT

A taut mooring system for use on a mobile offshore jack-up platform while it is in an elevated operating condition. The elevated operating condition is with the hull jacked up a safe distance above the highest anticipated wave crests, on vertically movable legs which extend to the ocean floor. The mooring system consists of: radially spaced mooring line attachment means on the structure of the platform; suction piles that are radially spaced around the platform, consistent with the radial spacing of the mooring line attachment means; and taut mooring lines which radially connect the suction piles to the attachment means. The flexibility of the taut mooring system provides the ability to coact with the platform's free standing storm resistance capabilities, yielding enhanced capabilities that will enable the platform to safely resist storm induced forces that the platform would not normally be capable of withstanding, and to enable the platform to be used with longer legs in deeper water.